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Claims

1. A laminar mat comprising a rigid planar tile of moulded plastics material having on respective faces a planar layer integrated therewith during injection moulding of the tile, the planar layers each being of similar material.
2. A laminar mat as claimed in claim 1 wherein the planar layers comprise a plastics material.
3. A laminar mat as claimed in claim 2 wherein said plastics material is polypropylene.
4. A laminar mat as claimed in claim 3 wherein said plastics material is oriented polypropylene.
5. A laminar mat as claimed in claim 1 wherein the planar layers comprise paper.
6. A laminar mat as claimed in claim 1 wherein the planar layers comprise card.
7. A laminar mat as claimed in claim 1 wherein both of the planar layers are laminated
8. A laminar mat as claimed in claim 7 wherein the planar layers include at least one laminae selected from the following: plastics material, paper and card.

9. A laminar mat as claimed in claim 8 wherein the plastics material is selected from polypropylene, oriented polypropylene and polyester.

5 10. A laminar mat as claimed in any of claims 7 to 9 wherein the planar layers each comprise three laminae.

11. A laminar mat as claimed in claim 10 wherein the planar layers each comprise three laminae of oriented polypropylene.

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12. A laminar mat as claimed in claim 10 wherein the planar layers each comprise a lamina of paper provided between laminae of oriented polypropylene.

15 13. A laminar mat as claimed in any preceding claim, the tile including a projection extending from a face thereof.

14 A laminar mat as claimed in claim 13 wherein said projection has a recess in an upper surface thereof.

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15. A laminar mat as claimed in claim 13 or claim 14 wherein the planar layer of said face having said projection is provided with an aperture for the projection.

25 16. A laminar mat as claimed in claim 13 or claim 14 wherein the planar layer of said face having said projection is weakened in the region of the projection.

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17. A laminar mat as claimed in any of claims 13 or claim 16 wherein the projection is substantially hollow so as to define a blind recess in an opposing face of the mat.

5 18. A laminar mat as claimed in claim 17 wherein the projection is provided with a through hole.

10 19. A laminar mat as claimed in claim 17 or claim 18 wherein the planar layer of said face having said recess is provided with an aperture for the recess.

15 20. A laminar mat as claimed in claim 17 or claim 18 wherein the planar layer of said face having said recess is weakened in the region of said recess.

21. A laminar mat as claimed in any preceding claim wherein the mat includes a living hinge.

SUB 1
A1 / 20 ~~22. A laminar mat as claimed in any preceding claim wherein at least one of the planar layers includes a coating which has one of high grip properties, anti-static properties and non-slip properties~~

23. A laminar mat as claimed in claim 22 wherein the mat has a screen printed coating.

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SUB 1
A2 / ~~24. A laminar mat as claimed in any preceding claim wherein at least one of said planar layers is textured by the mould during moulding~~

~~25. A laminar mat as claimed in claim 24 wherein both of said planar layers are textured by the mould during moulding.~~

26. A laminar mat as claimed in claim 24 or 25 wherein the or each planar layer is textured with a pattern adapted to increase the frictional properties thereof.

~~27. A laminar mat as claimed in any preceding claim, the mat including a rounded peripheral edge.~~

~~28. A laminar mat as claimed in any preceding claim, the mat including a non-slip backing material attached thereto.~~

29. A laminar mat as claimed in claim 28 wherein said non-slip backing material is attached by adhesive.

30. A laminar mat as claimed in claim 29 wherein said adhesive is a heat activated adhesive.

31. A laminar mat as claimed in claim 30, wherein the planar layer provided between the tile and the backing material comprises a first lamina fixed to the planar tile, a second lamina of aluminium foil bonded to the opposite side of the first lamina, and a lamina of heat sensitive adhesive fixed to the aluminium foil.

32. A method of manufacturing a laminar mat comprising the steps of:
inserting at least two planar layers of similar material into a mould at opposed surfaces thereof,

filling the mould with a molten plastics material between the planar layers,

and allowing the plastics material to set to produce a planar tile with said planar layers bonded to opposite surfaces thereof.

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33. A method as claimed in claim 32 and including the step of cutting the planar tile to shape after moulding thereof.

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34. A method as claimed in claim 32 or claim 33 including the step of configuring the mould so as to define one or more projections in the tile during moulding thereof.

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35. A method as claimed in any of claims 32 to 34 and including the step of configuring the mould so as to define one or more recesses in the tile during moulding thereof.

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36. A method as claimed in any of claims 32 to 35 and including the step of configuring the mould so as to define one or more combined projections and recesses in the tile during moulding thereof.

37. A method as claimed in any of claims 32 to 36 and including the step of configuring the mould so as to define one or more living hinges in the tile during moulding thereof.

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38. A method as claimed in any of claims 32 to 37, the method further including the steps of:

including on one of said planar layers heat-activated adhesive means on a lamina of heat conductive material,

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~~after removing the moulded tile from the mould, positioning backing material on said layer of the tile using alignment means to align the tile and backing material,~~

5 ~~and activating the heat activated adhesive to bond the backing material to the tile.~~

39. A method as claimed in claim 38 wherein the heat conductive material is metal and the heat activated adhesive is activated by utilising induction means to heat said heat conductive material.

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~~40. A method as claimed in claim 38 or 39 wherein said heat conductive material is aluminium foil.~~

15 ~~41. A method as claimed in any of claims 38 to 40 including the step of providing alignment means on the tile, said alignment means serving to align the backing material before activation of the adhesive.~~

20 42. A method as claimed in claim 41 wherein the step of providing alignment means comprises moulding an edge of the tile so as to enable positive location of the backing material thereagainst.

25 ~~43. A mould for the production of a laminar mat, the mould comprising two mould parts defining therebetween a cavity which is filled during moulding, one of said mould parts being provided with an injection port, wherein said injection port has a peripheral wall extending partially across said cavity towards the other of said mould parts.~~

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~~44. A mould as claimed in claim 43 wherein said wall is discontinuous.~~

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